

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

FRONTIER FISHING CORP.

Plaintiff,

v.

DONALD EVANS, Secretary of the
UNITED STATES DEPARTMENT OF
COMMERCE; AND CONRAD C.
LAUTENBACHER, JR., UNDER
SECRETARY FOR OCEANS AND
ATMOSPHERE/ADMINISTRATOR AND
DEPUTY UNDER SECRETARY

Defendants.

CIVIL ACTION

NO.: 04-11171-DPW

AFFIDAVIT OF HARRIET A. DIDRIKSEN

I, Harriet A. Didriksen, of 74 North Street, Mattapoisett, Massachusetts, having been duly sworn, hereby state:

1. I am a president and sole shareholder of Frontier Fishing Corp. and have been following these proceedings before the Agency below on behalf of the corporation.
2. In October of 2004, I reviewed the file on this matter that was received from our prior counsel. While reviewing the file I found the 17 page fax that is attached hereto.
3. Page 9 of the fax contains a handwritten log which appears be part of the CIC records. I am familiar with the file related to this case, attended the hearing and had never seen this document before.

Signed under the pains and penalties of perjury this 7th day of April, 2005

/s/ Harriet A. Didriksen
Harriet A. Didriksen

Office of the Assistant General Counsel
for Enforcement and Litigation
8484 Georgia Avenue, Suite 400
Silver Spring, Maryland 20910
voice (301) 427-2202
fax (301) 427-2404/2211

Facsimile Cover Sheet

Date: AUGUST 10, 2004

To: PAMELA LAFRENIERE

Fax Number: 508-993-3117

Office: _____

Telephone Number: _____

From: JOEL LABISSONNIERE

Pages (inc. cover): 17

Comments: _____

PURSUANT TO YOUR DISCOVERY REQUEST, ATTACHED
ARE THE FOLLOWING ITEMS

① ANTENNA DATA

② SPENCER CIC RECORDS (RETRIEVED FROM
THE CENTER TODAY)

NOTICE

THIS FACSIMILE MAY CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE ADDRESSEE NAMED ABOVE. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATIONS STRICTLY PROHIBITED. UPON ERRONEOUS RECEIPT OF THIS COMMUNICATION, PLEASE NOTIFY THIS OFFICE IMMEDIATELY BY TELEPHONE-- WE WILL ARRANGE TO HAVE THE COMMUNICATION RETURNED TO US.

1.8 ANTENNA, AS-3194 AND PEDESTAL, AB-1247A (UNITS 1 & 2)

1.8.1 Function of Equipment [X-Band Antenna]

RF energy from the transmitter section of the MTR is coupled through a rotary joint waveguide and directed to the slotted waveguide array (antenna). Energy is radiated from the array in a narrow unidirectional beam, so that the bearing of an object reflecting energy can be determined to within approximately 1°. Vertically, the beam is relatively wide (approximately 20°), so that the roll and pitch of the vessel will not normally impair the antenna direct line of sight to the horizon. The antenna radiates the pulse of high frequency energy and receives the reflected pulse of energy from the target.

The slotted waveguide array is continuously rotated by the drive system which reduces the antenna motor shaft speed to the desired antenna rotation speed. The resolver is an electro-mechanical device which converts the rotation and instantaneous direction of the antenna into electrical signals that cause the PPI trace to rotate in synchronism with the antenna. The heading line is generated by means of a reed switch which momentarily closes once every revolution when the antenna passes the bow of the ship.

1.8.2 Antenna Performance Characteristics

The performance characteristics of Antenna, AS-3194 and Pedestal, AB-1247A follow in Table 1-7.

Table 1-7 Antenna, AS-3194 and Antenna Pedestal, AB-1247A,
Performance Characteristics

Parameter	Description
Type	End-Fed Slotted Array
Polarization	Horizontal
Horizontal Beam Width (at -3 dB)	1.2°
Vertical Beam Width (at -3 dB)	20.7°
Gain	28.5 dB
Horizontal Side Lobes	-29 dB
Rotation Speed	33 RPM
Ambient Temperature Range	-25° to +65°C
Relative Humidity (at 55°C)	98%
Shock (all planes)	20G
Vibration	1G at 5-50 Hz
Waterproofing	24 hrs at 1 inch/hr or 1 hr at 5 inches/hr
Rated Wind Load:	
Operating	190 knots
Survival	150 knots

1.8.3 Antenna Pedestal Power Requirements

The power requirements for the Antenna Pedestal (AB-1247A) are 1.8 Vao, single phase, 60 Hz, 977 W.

1.9 ANTENNA, AS-3195 AND PEDESTAL, AB-1248 (UNITS 11 and 12)

1.9.1 Function of Equipment [S-Band Antenna]

The pedestal supports and rotates the antenna at 33 RPM. The antenna both radiates the narrow horizontal beam generated by the MTR and receives the target echoes for transmission to the MTR.

1.9.2 Antenna Performance Characteristics

The performance characteristics of Antenna, AS-3195 and Antenna Pedestal, AB-1248 follow in Table 1-8.

Table 1-8 Antenna, AS-3195 and Antenna Pedestal, AB-1248,
Performance Characteristics

Parameter	Description
Type	End-Fed Slotted Array
Polarization	Horizontal
Horizontal Beam Width (at -3 dB)	2°
Vertical Beam Width (at -3 dB)	23°
Gain	27.5 dB
Horizontal Side Lobes	-29 dB
Rotation Speed	33 RPM
Ambient Temperature Range	-25° to +65°C
Relative Humidity (at 55°C)	95%
Shock (all planes)	20G
Vibration	1G at 5-50 Hz
Waterproofing	24 hrs. at 1 inch/hour or 1 hour at 5 inches/hour
Rated Wind Load:	
Operating	100 knots
Survival	150 knots

1.9.3 Antenna Pedestal Power Requirements

The power requirements for the Antenna Pedestal AB-1248 are 440 Vac, 3 phase, 50-60 Hz, 1400W.

1.10 RECEIVER TRANSMITTER, RT-1342A (UNIT 17)

1.10.1 Function of Equipment [X-Band MTR]

The MTR (50 kW, X-band) generates the radio frequency burst for radiation by the antenna in accordance with timing and control signals from the indicators. The echoes reflected from the target are amplified and detected to provide video target data to the indicators.

1.10.2 MTR (X-Band) Performance Characteristics

The performance characteristics for the X-Band Receiver Transmitter, RT-1342A follow in Table 1-9.

Table 1-9 Receiver Transmitter, RT-1342A, Performance Characteristics

Parameter	Description
<u>Transmitter</u>	
Frequency Range	9375 \pm 30 MHz
Peak Power Output	40 kW Nominal
Pulse Width	0.06 usec (0.25 to 3 NM); 0.5 usec (6, 12 NM); 1 usec (24, 48, 64 NM); 0.5 usec (RT)
PRF	3600, 1800, and 900 PPS
<u>Receiver</u>	
Intermediate Frequency	45 MHz
IF Amplifier Bandwidth	24 MHz (0.06 usec PW); 4 MHz (0.5 and 1 usec PW)
Video Amplifier Bandwidth	20 MHz equivalent (sampled data system)
Noise Figure	10 dB maximum
Minimum Discernible Signal	-98 dB minimum
<u>System Environment</u>	
Ambient Temperature Range	0° to +55°C
Relative Humidity (at 55°C)	95%
Shock (all planes)	15G
Vibration	1G at 5-50 Hz
Waterproofing	Drip-proof

1.10.3 MTR (X-Band) Power Requirements

The power requirements for the X-Band MTR (RT-1342A) are 11 Vac, single phase, 50-60 Hz, 550W.

1.11 RECEIVER TRANSMITTER, RT-1241A (UNIT 13)

1.11.1 Function of Equipment [S-Band MTR]

The MTR (60 kW, S-Band) provides 45 kW peak power at S-Band for radiation by the antenna. Target echoes are received by the antenna and then amplified to provide video data to the indicators.

1.11.2 MTR (S-Band) Performance Characteristics

The performance characteristics for the S-Band Receiver Transmitter, RT-1241A follow in Table 1-10.

Table 1-10 Receiver Transmitter, RT-1241A, Performance Characteristics

Parameter	Description
<u>Transmitter</u>	
Frequency Range	3050 \pm 25 MHz
Peak Power Output	50 kW Nominal
Pulse Width	0.06 μ sec (0.25 to 3 NM) 0.5 μ sec (6, 12 NM); 1 μ sec 24, 43, 64 NM; 0.5 μ sec (12RT)
PRF	3600, 1800, 900 PPS
<u>Receiver</u>	
Intermediate Frequency	45 MHz
IF Amplifier Bandwidth	24 MHz (0.06 μ sec PW) 4 MHz (0.5 and 1 μ sec PW)
Video Amplifier Bandwidth	20 MHz equivalent (sample data system)
Noise Figure	10 dB maximum
Minimum Discernible Signal	-98 dB minimum
<u>System Environment</u>	
Ambient Temperature	0° to +55° C
Relative Humidity (at 55°C)	95%
Shock (all planes)	15G
Vibration	1G at 5-50 Hz
Waterproofing	Drip-proof

1.11.3 MTR (S-Band) Power Requirements

The power requirements of the S-Band MTR (RT-1241A) are 115 Vac, single phase 50-60Hz, 575W.

1.12 AZIMUTH RANGE INDICATOR, IP-1282C (12-INCH) (UNIT)

1.12.1 Function of Equipment [12-Inch Ind]

The IP-1282C indicator provides a PPI display for a full 360° coverage. There are ten display ranges extending from 0.25 to 64 miles. An added feature includes an Electronic Bearing Line (EBL) for accurate measurement of target bearing and range information. Heading flash and both fixed and variable range markers are displayed on the CRT along with the targets.

1.12.2 12" Indicator Performance Characteristics

The performance characteristics of Indicator, IP-1282C follow in Tables 1-11 and 1-12.

Table 1-11 Indicator, IP-1282C, Performance Characteristics

Parameter	Description
<u>System</u>	
CRT Phosphor:	P38
Minimum Range:	25 yards
Range Scales:	.25, .50, .75, 1.5, 3, 5, 12, 24, 48, 64 NM, 12 RT
Range Ring Accuracy:	10 yards or $\pm 0.25\%$ (whichever is greater)
Range Resolution:	0.25, 0.5, 0.75 NM 1.5 NM 3.0 NM 20 Yds 25 yds, 48 yd.
Bearing Resolution:	1.25° at 1/3 radius
Bearing Accuracy:	± 1.0 degree
VRM Accuracy:	10 yards or 1.0% (whichever is greater)
VRM Resolution:	5.062 yards or $\pm 0.25\%$ (whichever is greater)
<u>Environmental</u>	
Operating Temperature	
Range:	32° to 131°F (0° to 55°C)
Vibration:	1g peak @ 5 to 50 Hz in 3 mutually perpendicular planes
Humidity:	0 to 95% @ 32° to 104°F (0° to 40°C) (ambient)

6.2 6-FT ANTENNA, AS-3194 (UNIT 1) AND ANTENNA PEDESTAL, AB-1247A (UNIT 2)

6.2.1 General

The Antenna, AS-3194 (Unit 1) of the AN/SPS-64(V)6 Radar system is a 6 foot long, end fed, slotted X-Band antenna array. The RF energy is fed via waveguide into one end of this 6 foot array and radiates a beam of RF energy through slots in the waveguide. These slots in the waveguide inside the array are very accurately cut to provide a narrow 1.2° beamwidth. The array flares control the vertical beamwidth of 20° which allows target detection on a rolling vessel.

The X-Band Antenna Pedestal, AB-1247A includes Antenna Drive Motor, B1, Resolver, B2, Antenna Safety Switch, S1 and Heading Flash Switch, S2. This pedestal also includes a synchro, B3 to provide an extra antenna position data output.

Input voltage to the antenna motor is applied via TB2. Setting the antenna safety switch to OFF ensures that power is removed from the antenna drive motor by action of relay 3K4 such that the antenna cannot accidentally be rotated during inspection or service. Protection against rf radiation from the antenna during service is provided by S1B. With S1 set to OFF, the ground on TB1-12 is removed from terminal TB1-11, disabling the transmitter, thereby placing the system in the standby mode.

Resolver B2 is an electro-mechanical device coupled to the antenna array drive mechanism. As the antenna rotates, resolver B2 converts the instantaneous position of the array into electrical signals which are coupled via TB1, through the Receiver Transmitter. At the indicator, these signals cause the PPI trace to rotate in synchronism with the antenna array. The resolver is driven at terminals S1 and S3 with a 900 Hz square wave. C1 and C3 are the outputs of the resolver compensation winding, which senses the flux in the resolver. This information is fed back to a resolver drive amplifier in order to maintain a constant amplitude input at S1/S3. R1 - R3, and R2 - R4 are the rotor windings which provide a square wave output whose voltage amplitude is proportional to the input times the sine or cosine of the rotor angle.

S2 is the ship's heading flash switch. This switch closes once every revolution of the array corresponding to the instant that the antenna beam passes over the ship's bow providing a heading line trigger to the indicator unit.

The synchro transmitter B3 provides a single speed antenna position output for interface with the COMDAC Display Systems. Excitation voltage 115 Vac, 60Hz is applied to the rotor winding of B3 while the 90 Vac stator outputs provide positional information to the COMDAC System.

6.3 12-FT ANTENNA, AS-3195 (UNIT 11) &
ANTENNA PEDESTAL, AB-1248 (UNIT 12)

6.3.1 General

S-Band Antenna Pedestal, AB-1248 supports a 12-foot S- and Antenna Array, AS-3195. The antenna array consists of a slotted waveguide, end-fed with a coaxial cable. The coaxial cable is connected into the rotary joint of the pedestal.

The pedestal houses the antenna drive motor (B1), which drives a gear reducer. The motor and precision gearing allow for operation in 100 knot relative winds. A head/stern flasher switch (S2), a precision resolver (B2), and synchro (B3) are geared to the main shaft in the pedestal.

The S-Band Antenna Pedestal is supplied with a three-phase 1 horsepower drive motor requiring 380/440 VAC, 50/60 Hz power source.

The transmitted energy, a train of short pulses, is generated by the transmitter and radiated outward from the ship in a narrow beam by the Antenna Array. As the antenna rotates, the beam scans the surrounding surface in all directions. Any object scanned by the antenna reflects a portion of the radiated signal back to the antenna.

A circulator in the rf front-end circuit couples the transmitter and receiver to the antenna, to permit a single antenna to be used for transmission and reception. The signal reflected from an object is collected by the antenna and processed through the rf front-end to the IF amplifier. Detected echoes are displayed on the CRT screen of the indicator. The rf input to the pedestal is via coaxial cable. In addition to the RF coaxial cable, there are three control/power interconnections between the antenna pedestal and the receiver/transmitter. -

1. RF Coax (7/8-inch BIA rf coaxial cable).
2. Antenna drive motor power (TSGU-9).
3. Control signals (Helden 8769).
4. Synchro Data (JSWU-3).

DATE: 11/09/17

PAGE _____ OF _____

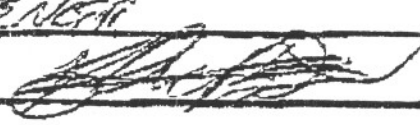

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Document 15

Filed 04/07/2005

Page 11 of 18

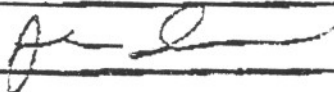
DATE: 10 OCT 01

TIME	REMARKS
	0000 - 0400
2330	UNDERWAY ON LT. POSN IN N. ATLANTIC UNDER ORDER OF COMNAVSTA. THIS UNIT IS CTU #1 IN POSN 3952N 07013W ON GRS 162°T AT 10.4 KTS. LT IS 228 DOWN FOR COMNAV PLAN POSTED IN LIE. ALL PLASSTICALS TO REMAIN OPERATIONAL EXCEPTED W/ EXCEPT OF MY 92 (578) AND 512-72 (5844) ENS BUREAU IS OOD. FT. MARRINE S.W.
2355	1/2 266°T
0024	1/2 264°T
0100	1/2 358°T
0130	1/2 356°T 1/3 16.3125
0153	1/2 350°T 1/3 9.8 KTS
0221	1/2 180°T
0232	1/2 214°T AT 10.4 KTS
0313	1/2 190°T
0345	WATCH TO ET3 SP. NERF
	
	0400 - 0800
0345	UIN AS BEFORE IN POSN 3954N 07042W LSE Z71 SPD 11 KTS
0700	SHIFTED TO HF DAY FREQS
0730	WATCH TO ET3 IRVIN
	

PAGE ____ OF ____

DATE:

16 OCT 97

TIME	REMARKS
	0800 - 1200
1130	U/W AS BEFORE IN POSN 39°13'N
	HDB 241 SPD 11.6 KTS
0815	SET FLT QTRS
0829	ENGINES ROTORS ENGAGED
0840	HELD CLRS PT SIDE
0841	SET FLT CON 2
0904	OK 230
1000	SET FLT QTRS
1018	HELD ON DECK
1105	C/C 070° @ 10 KTS TO INTERCEPT KAREN ELIZABETH
	HEADED TO 40°11'N 070°53'W ACCORDING TO JETS
1140	WATCH TO ETB HERRERA
	
	1200-1600
1140	U/W IN POSN 39°50'N 071°30'W ON CSE 070° @ 10 KTS
1200	CGC PT. TURNER MOORED NEWPORT
1307	S-BAND AN/SPS-64 SECURED FOR CORRECTIVE MAINTENANCE
1312	C/C TO 030° @ 18.4 KTS.
1348	NO. 2 REPORTS 2 SMALL CONTACTS INSIDE NL GA NENE INSIDE OTHER
	CLOSED NETS
1428	C/C TO 122° @ 8.3 KTS.
1434	C/C TO 105° @ 8.3 KTS.

PAGE ____ OF ____

DATE: 16 OCT 97

TIME	REMARKS
	12-1600 CONT'D
1437	SPS-64 5-BAND RADAR BACK ON LINE.
1439	SET GO-I DRILL FIRE IN COMPACTOR ROOM
	WHITE SMOKE RPTD.
1445	P250 Pump TEAM SENT TO THE FANTAIL.
1450	MAN DOWN IN RP 2 SA. BATISTA.
1452	ZEBRA SET IN AFFECTED AREA.
1453	SN MATOS, ET3 IRVIN, RDC PARKER AND ENS
	HOLSER SENT TO FANTAIL TO ASSIST P250 PUMP
	TEAM
1459	ALPHA FIRE IS OUT REFLASH WATCH SET BY DO3 LAINHART
1517	SCORE FROM DRILL
1530	WATCH TO ET3 TODD
1530	1600-2000 SA
1530	1600-2000
1530	UPPER POSITION 4002N 07057W GSZ 268° 11.7 KTS
1710	SE 077
1714	DRUM B3 ATTEMPTED COMBOS CANCE 10 304
1746	D1 CONTINUED CANCE CASES VERA SYMCON REGARDING CAC WINDMILL CANCELED.
	TASKED GEORGES BANK SAR CANCELLED TO IT TURNER & NY BIRTH CANCELLED TO CTU.
1945	WATCH TO FT2 MCBRIDE
	RTN INV 053

PAGE ____ OF ____

DATE: 16 OCT 97

TIME	REMARKS
	<u>2000-2400</u>
1945	u/w AT Pos 4003N 07030W / 025 074°T Rt 10.4KTS
2121	c/c 085°T
2149	c/c 030
2200	INTERCEPTED F/U SETTER had plotted INR inside RGA I
2250	SET LE Phase I
2257	SET LE PHASE II
2330	WATCH 6 ET ³ SPANICER
<div style="position: relative; height: 100%; width: 100%;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 2px solid black; border-right: 2px solid black; transform: rotate(45deg); transform-origin: center;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em; font-weight: bold;"> OFF 3/5 </div> </div> </div>	

DATE: 17 OCT 97

TIME	REMARKS
	0000 - 0000
2330	UNDERWAY ON IE PATROL IN NW ATLANTIC UNDER ORION OF COMLANTAREA. THIS UNIT IS CTU 94.1.1 IN POSN 3455N 07010W ON SE 149 SPD 4.9 WX AS PER GMDN LOG. COMMS PLAN AS POSTED IN CIC ALL ELECTRONICS ARE ENERGIZED W/EXCEPTION OF ME-92 IN STBY. ENS BURNS IS OOD ET3 SPENCER IS WS.
2351	MULTS DUE TO BOARDING OF EV SETTLER
0151	CIC/S 033°T SPD 10 KTS
0201	CIC 122°T
0305	CIC 084°T
0330	WATCH TO ET3 IRVIN
	<i>[Signature]</i>
	0400 - 0800
0330	1/2 hr - 1 hr hole in FURN 3455N 0695W
0710	COMBAT TRACK SIE3 IDENTIFIED AS ALICE MARIE LOBSTER BOAT
0730	WATCH TO ET3 TODD
	<i>[Signature]</i>
	0800 - 1200
0730	1/2 hr POS 4007W 0670W OF 90°T 3/11 8.5 KTS
0730	1/2 hr POS 4007W 0670W OF 90°T 3/11 8.5 KTS

PAGE ____ OF ____

DATE: 11/01/97

TIME	REMARKS
	0800-1200 (continued)
0840	1/2 KRT SPD 7.4 KTS
1007	C/S 15 KTS
1007	C/S 15 KTS
1057	ON 150Z ON SCENE PATROLING EXERCISE
1100	STAGING CASUALTY DRILL
1140	WATCH TO LT ³ HERRERA
	<i>Rich. H. H. S.</i>
	1200-1600
1140	U/W IN POSN 40°07'N 068°59'W ON CSE 180° @ 11 KTS
1224	C/C 250' @ 6.9 KTS
1312	C/C TO 180° @ 6.9 KTS
1344	SET FLT QTRS
1401	ROTOR ENGAGED
1407	HELD CLES PORT SIDE
1409	SET FLICON TWO
1430	C/C 270
1433	DI REPORT: RE EXPLORER DISABLED WITH RNL REPAIRS
	4005 07252 SHIFTING PT TURNED TACON
	TO GROUNDS MORNING FOR SAR
1449	CG 1502 HAS MAJOR MALFUNCTION W/ FLIGHT
	EQUIPMENT WILL DIVERT TO BRUNSWICK FOR REPAIR
	CURRENT POSN 41°47'N 068°14'W ALTITUDE 10,500 FT

PAGE ____ OF ____

DATE: 17 OCT 97

TIME	REMARKS
1453	C/C TO 270°
1525	SET FLT QTRS.
1532	1503 RTB - BRIDWICK, NY INDEPENDENT PROBLEMS
1559	6530 O/D H/R
1613	6530 A/B 4 PDS
1624	SET FLT QTR JH
1630	WATCH TO FT ² McBRIDE.
	<i>[Signature]</i>
	1600-2000
1630	W/V AS POS 4003N 06927W CRS 253°T AT 18.2 KTS INTERCEPT F/V WARRIDE
1637	FROM PT TRINIDAD W/V CASTLE ISLAND EUR FL EXPLORER
1650	FLT QUARTERS
1702	6530 ON DECK
1723	SECURE FLT QUARTERS
1724	C/C 254°T AT 8.8 KTS
1844	C/C 295°T AT 10.4 KTS
1914	C/C 161°T
1930	WATCH TO ET ³ SPINER
	<i>[Signature]</i>
	2400-2400
1930	W/V AS BEFORE IN POSN 3954N 06957W CSE 149°T SPD 11 KTS

PAGE ____ OF ____

DATE: _____

TIME	REMARKS
	2000 2400 (cont)
1950	BIGEYE PASSED TWO VESSELS IN C.A.T. WE REQ THAT HE DECEED, (D) DOCUMENT BOTH VESSELS.
2000	USCGC TAHOMA ASSUMED CTU 94.1.1
2153	LIC 220°T
2232	LIC 277°T
2330	WATCH TO ET3 IRVIN
	<i>[Signature]</i>
	<i>[Large diagonal line across the page with "F O G" written vertically]</i>

PAGE _____ OF _____